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Appl. No: 08/932,993 Confirmation No.: 5914
Applicants: McKain *et al.*
Filed: September 18, 1997
For: Portable Moving Picture Recording Device Including Switching Control for Multiple Data Flow Configurations

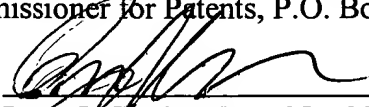
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APPLICANT'S APPEAL BRIEF UNDER 37 C.F.R. §1.192

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This brief, submitted in triplicate, and instructions for payment of the fee under 37 C.F.R. §1.17(c), are submitted under 37 C.F.R. §1.192 in furtherance of the Notice of Appeal mailed in connection with this application on May 13, 2003.

Applicant hereby petitions for a three-month extension of time for filing this brief. Instructions for payment of the fee for the extension under 37 C.F.R. §1.17(a)(3) are enclosed.

A Request for Oral Hearing and instructions for payment of the corresponding fee under 37 C.F.R. §1.17(d) also are enclosed.

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I. Real Party In Interest

The real party in interest is Avid Technology, Inc., who is the assignee of this application by an assignment from the inventors recorded at Reel 8807, Frame 0442. Avid Technology, Inc. is a corporation formed under the laws of the state of Delaware and has a principle place of business at One Park West, Avid Technology Park, Tewksbury, Massachusetts 01876.

II. Related Appeals and Interferences

This appeal is related to an appeal in a related application: U.S. Patent Application Serial No. 08/932,784. That appeal has been fully briefed and an oral hearing has been requested.

III. Status of Claims

The claims as pending and as appealed are 1, 4-7, 9-11, 13-17, 19 and 20, of which claims 1, 4, 5, 6, 17 and 20 are independent. These claims are reproduced in the attached Appendix I. Claims 2-3, 8, 12 and 18 were previously cancelled.

IV. Status of Amendments

No amendments have been submitted subsequent to the Final Office Action.

V. Summary of Invention

The present invention relates to combining editing capability typically found only in a production studio with switching capabilities typically found only in a television station in a portable moving picture recorder that records on computer-readable and writable random access recording media. Page 3, lines 8-11. The recorder includes a housing 20 sized to be portable by an individual. Page 3, lines 11-13. A motion picture camera (22 in Fig. 1) is mounted in the housing. Page 6, line 22-23. A sequence of digital still images is produced from the motion picture camera. Page 3, line 32; page 8, line 1; page 11, line 3. A digital, computer-readable and writable random-access medium (page 4, lines 4-8) is mounted in the housing and is connected to receive and store the sequence of digital still images in a computer-readable file format (page 9, line 39 to page 10, line 6).

A motion picture editing system also is in the camera. Page 4, lines 15-21. See also page 16, lines 1-14. Such an editing system defines a sequence of segments, or list of portions, of the

plurality of data files. Page 4, line 16. Playback of the video information from the data files stored in the camera is provided on either a viewfinder, display or through an external video port. See page 16, lines 8-10. During editing it is possible to display video through an external video port or to have the external video port transmit live video. See page 16, lines 10-11. These capabilities are provided through a decoder (see 80 in Fig. 4), encoders (86, 88 in Fig. 4), switches (86a and 88a in Fig. 4), disks (99 in Fig. 4), data buses (66 and 84 in Fig. 4) and an interface (e.g., 30, 33, 34 of 24 in Fig. 1).

The inclusion of an editing system within the housing of a camera that records video information in data files on a digital, computer-readable and writable random-access medium “allows the user of the present invention to edit the video material recorded at the recording site, even prior to, or in lieu of, editing in a studio. This is particularly advantageous if the material must be broadcast immediately. Therefore, the video and audio signals may be recorded, edited and broadcast from the field in a very short period of time.” Page 16, lines 5-8.

The inclusion of the variety of switching capabilities provide, in a camera, capabilities similar to those found in a television broadcast studio (see page 16, lines 11-13), in a device that can be carried on the shoulder of an individual (see page 3, lines 12-13).

VI. Issues

The issues on appeal are:

1. Whether findings of fact about what the primary reference teaches and on which the Final Office Action relies are supported by substantial evidence;
2. Whether the construction of the claims in the Final Office Action is unreasonably broad by being inconsistent with the plain language of the claims and with the specification and by rendering meaningless express claim limitations; and
3. Whether the claims as properly construed are rendered obvious by the teachings of the cited references, as properly understood.

VII. Grouping of Claims

Group I includes independent claim 1 and dependent claims 13-16. The claims within this group do not stand or fall together.

Group II includes independent claim 4.

Group III includes independent claim 5.

Group IV includes independent claim 6 and dependent claims 7 and 9-11. The claims within this group do not stand or fall together.

Group V includes independent claim 17 and dependent claim 19. The claims within this group do not stand or fall together.

Group VI includes independent claim 20.

These groups of claims do not stand or fall together. The appellant considers the claims of the different groups, and the different claims within each group, to be separately patentable for reasons given in the "Argument" section of this Appeal Brief. Differences among the independent claims also are illustrated by the chart of Appendix II.

VIII. Argument

All of the appealed claims were finally rejected under 35 U.S.C. 103 in view of U.S. Patent 5,537,157 ("Washino") in view of U.S. Patent 5,579,239 ("Freeman") and (for Group V only) further in view of Japanese Patent Application 3-314435 with Publication Number 5-153448 ("Morita"). This final rejection should be reversed and the claims should be allowed for the following reasons.

A. The rejections should be reversed because findings of fact about what the primary reference teaches and on which the Final Office Action relies are not supported by substantial evidence.

All of the independent claims, and thus the claims of all groups, recite that various elements reside "in the housing" of a system that includes a camera in that housing. The Final Office Action makes erroneous factual findings by concluding that several elements described in the primary reference (Washino) reside in the housing of a camera.¹ Such findings of fact are reviewed for substantial evidence. *In re Gartside*, 203 F.3d 1305, 1319 (Fed. Cir. 2000). Substantial evidence means "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Okajima v. Bourdeau*, 261 F.3d 1350, 1354 (Fed. Cir. 2001), cert. denied, 534 U.S. 1128 (2002) (citing *In re Gartside*, 203 F.3d at 1316).

¹ The remaining references, Freeman and Morita, are used only for their teachings that video information is stored in a data file (Freeman, Col. 3, lines 1-3) and that a display may be on a camera (Morita, Figs. 2 and 4).

In Washino, Fig. 2a (reproduced below) is described as follows, at Col. 6, lines 31-44:

"Fig. 2a shows a camera . . . A lens 2 and viewfinder 4 are mounted upon the body of the camera frame. The usual optical-splitter, CCD-sensors and driver circuitry, and . . . digital signal processing circuitry are located at 6 . . . The various analog and digital output signals and any input audio, video or control signals, all shown generally at 16, are interfaced through appropriate connectors disposed on the rear-panel 12 and sub-panel 14. Provisions are included a shown [sic] for the input of analog audio signals, and for the output of both analog and digital audio signals. . . Internal video recording facilities 8 are described herein below."

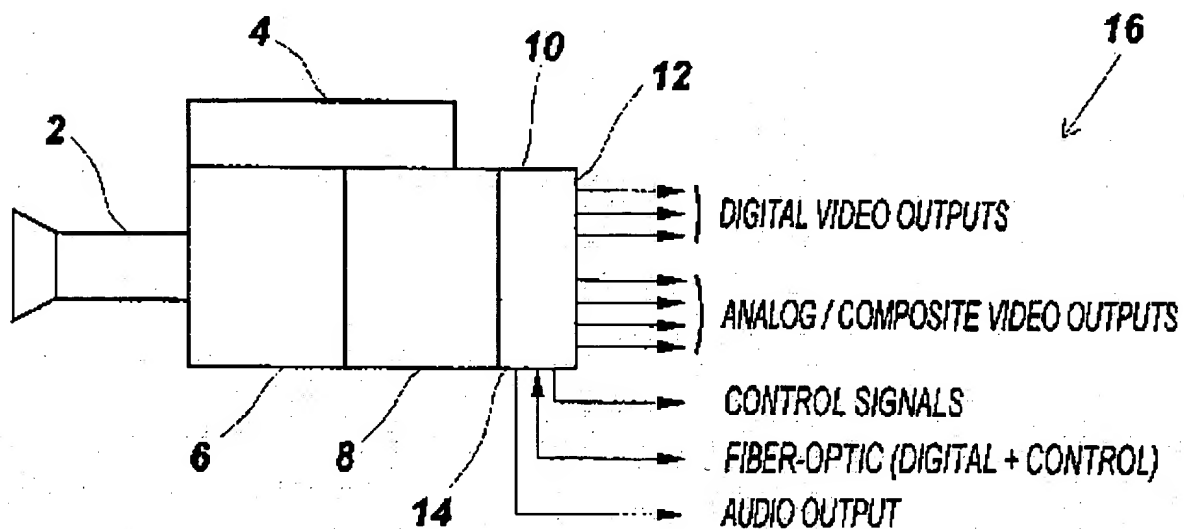


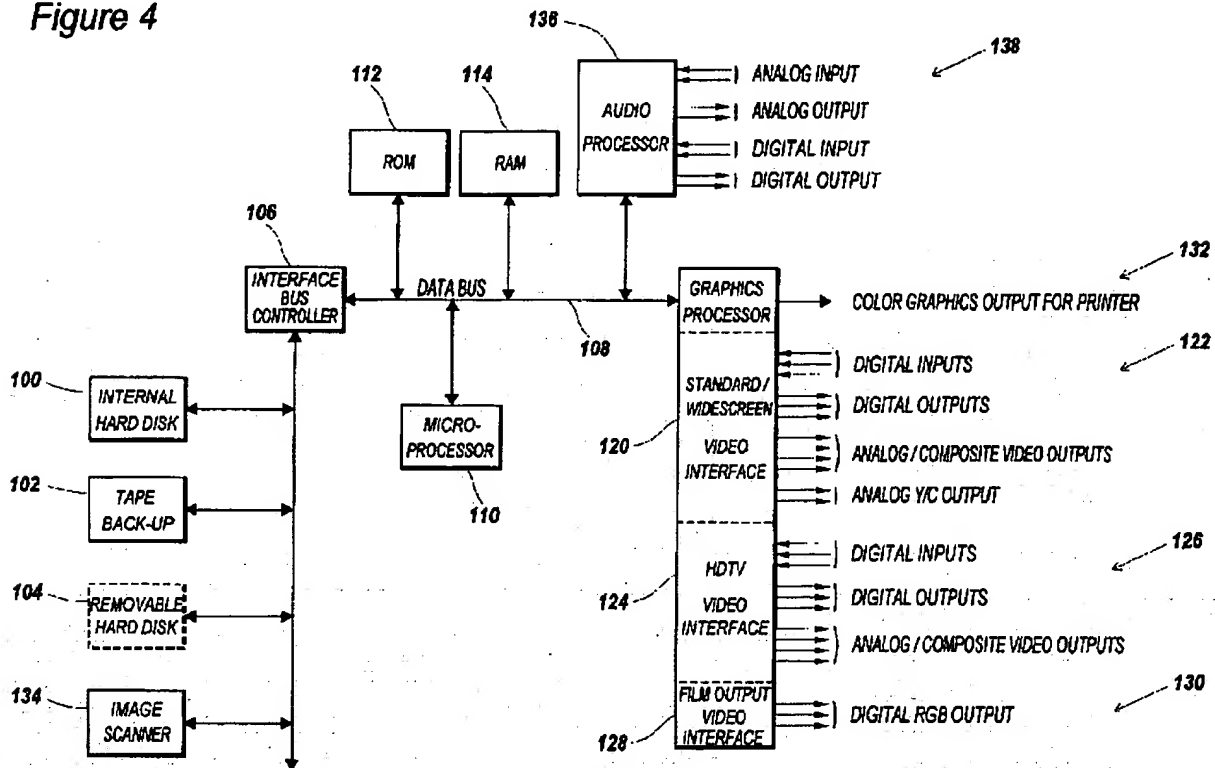
Figure 2a

Regarding the storage 8 in Fig. 2a, Washino further states at Col. 8, lines 29-47:

"For this application, a data storage unit 8 is provided to facilitate editing and production activities, and it is anticipated that these units would be employed in much the same way as video cassettes are currently used in Betacam and other electronic news gathering (ENG) cameras and in video productions. This data storage unit may be implemented by use of a . . . disk drive with removable storage media, or by a removable disk-drive unit . . ."

Further according to Washino, "Fig. 4 shows the components that comprise a multi-format audio/video production system." Col. 9, lines 39-40. Fig. 4 is reproduced below and is described in Washino from Col. 9, line 39 to Col 12, line 23.

Figure 4



According to Washino, Fig. 3, reproduced below, "shows the functional diagram for the storage-device-based digital recorder employed in the video camera, or separately in editing and production facilities." Col. 8, lines 55-57. Fig. 3 is described in Washino from Col. 8 line 55 to Col. 9, line 37.

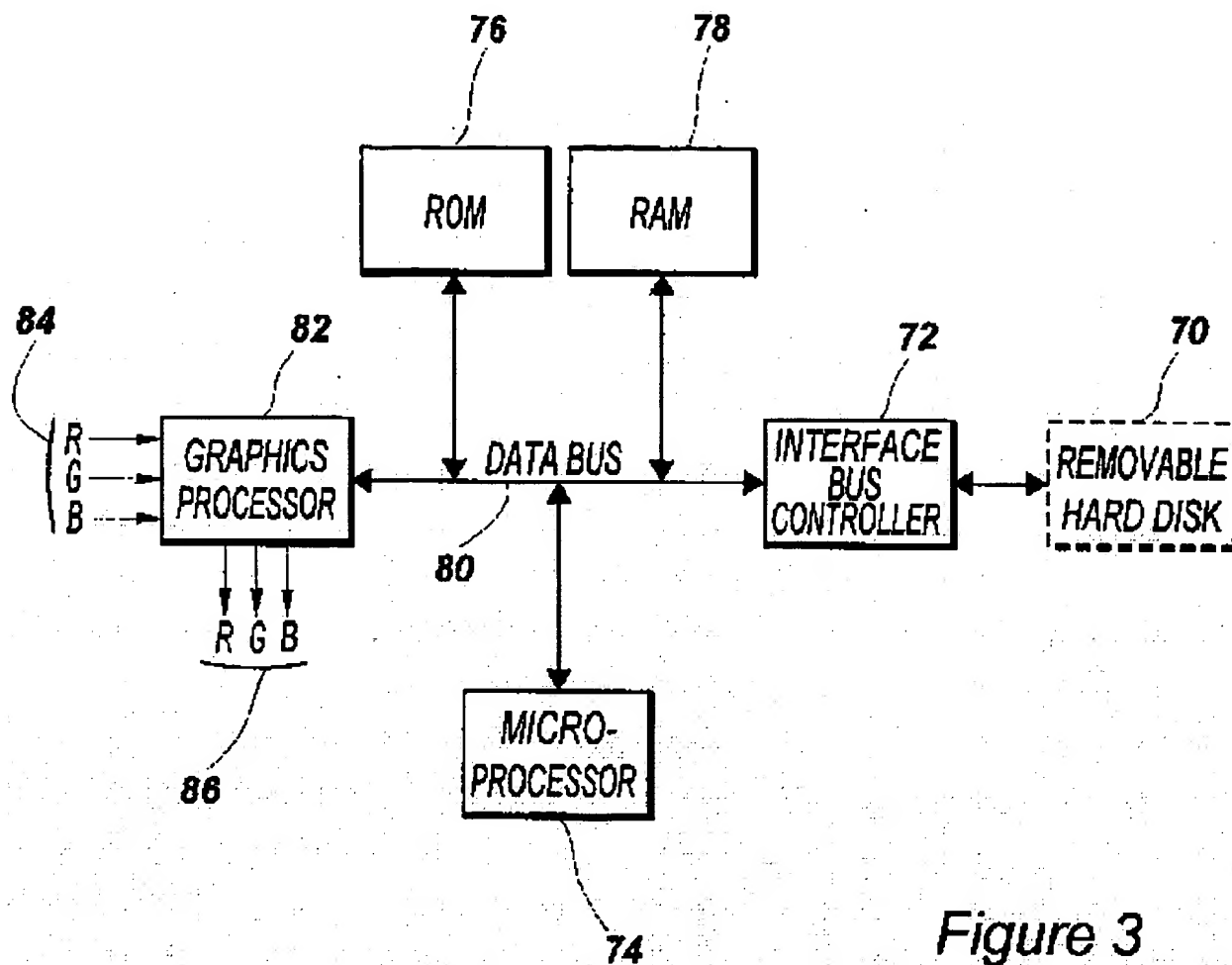


Figure 3

Washino states that editing functions are performed in a personal computer. In particular, Washino states, at Col. 2, lines 45-51 (which is cited in the Final Office Action at page 2, lines 14-15), the following (with emphasis added):

"In the preferred embodiment, specialized graphics processing capabilities are included in a high-performance personal computer or workstation, enabling the user to edit and manipulate an input video program and produce an output version of the program in a final format which may have a different frame rate, pixel dimensions or both."

Washino also states, at Col. 3, lines 54-60 (which is cited in the Final Office Action at page 2, lines 14-15), the following (with emphasis added):

"The system . . . allows an operator to control equipment . . . at a centralized personal computer to produce, edit and record a video program. Each camera to be used with the system . . . feeds a signal to the personal computer . . ."

The erroneous findings of fact in the Final Office Action are the assertions that editing functions and other devices described in connection with Fig. 4 of Washino (particularly at Col. 12, lines 12-23 and Col. 14, lines 35-53) reside in the camera of Fig. 2a of Washino. The evidence relied on in the Final Office Action to support this conclusion includes:

1. Washino states: ". . . a data storage unit 8 is provided to facilitate editing and production activities . . ." Col. 8, lines 39-40 (cited in the Final Office Action, page 3, lines 12-13); and
2. Washino states: "Fig. 3 shows the functional diagram for the storage-device-based digital recorder employed in the video camera, or separately in editing and production facilities." Col. 8, lines 55-57 (cited in the Final Office Action, page 3, line 11).

Based on these two excerpts from Washino, the Final Office Action concludes that "[t]his shows that editing and production facility components are in the camera (in the housing)." Final Office Action, page 3, lines 13-15.

These excerpts of Washino, in view of the explicit statements in Washino that editing is performed in a personal computer, are not "such relevant evidence as a reasonable mind might accept as adequate" to support the conclusions of the Final Office Action.

In particular, the first excerpt is taken out of context. See page 6 of this Brief. The data storage 8 in Fig. 2a facilitates editing because “it is anticipated that these units would be employed in much the same way as video cassettes are currently used in Betacam and other electronic news gathering (ENG) cameras and in video productions.” Col. 8, lines 39-44. In other words, the storage 8 is removable which enables it to be transferred to editing and production equipment. The complete sentence containing the excerpt of Washino cited in the Final Office Action does not support a conclusion that Washino teaches editing functions reside in Washino’s camera (Fig. 2a).

The second excerpt (Col. 8 of Washino) only supports the conclusion that the components of Fig. 3 may be either in a camera (Fig. 2a) or in an editing and production facility (Fig. 4). It does not state, nor does it support a conclusion, that Washino teaches components of the editing and production facility (Fig. 4) reside in Washino’s camera (Fig. 2a).

In a prior Office Action dated October 19, 2000, on page 3, last three lines and page 6, last four lines², it was asserted that the components of the editing and production facility may reside in the camera because Washino states: “This invention relates generally to video production, photographic image processing, and computer graphics design, and, more particularly, to a multi-format video production system capable of professional quality editing and manipulation of images . . .” Col. 1, lines 10-15. This portion of Washino is inadequate to support a conclusion that Washino teaches the components of an editing and production facility, such as Fig. 4 of Washino, reside in Washino’s camera (Fig. 2a).

In a prior Office Action dated July 10, 2001, on page 2, last three lines³, it also was asserted that the *absence* of any teaching limiting the elements of Fig. 4 to a production facility was evidence of a teaching that these elements may be placed in a video camera. The prior Office Action stated:

“There is *no suggestion* that the elements shown in Fig. 4 *preclude* the same kind of application as that contemplated in Fig. 3.” (emphasis added).

² This assertion was not withdrawn in any subsequent Office Action but was not made in the Final Office Action.

³ This assertion also was not withdrawn in any subsequent Office Action but was not made in the Final Office Action.

This speculation about the significance of an absence of a teaching is not evidence, and therefore also is not such relevant evidence as a reasonable mind might accept as adequate to support the conclusion that Washino teaches editing functions reside in Washino's camera (Fig. 2a).

In sum, all of the portions of Washino cited in the Final Office Action support the conclusion that the editing functions are found in a personal computer, and are separate from Washino's camera. The conclusion that editing operations are performed in Washino's camera also directly contradicts Washino's express statements that editing is performed using a personal computer. Therefore, the various portions of Washino that are cited in the Final Office Action, and the other arguments made in the Final Office Action, are not "such relevant evidence as a reasonable mind might accept as adequate to support" the conclusion made in the Final Office Action that editing and production facility components are in the camera. Accordingly, the rejections that rely on these findings of fact should be reversed.

Having addressed the general position of the Final Office Action (that Washino teaches editing and production facility components in Fig. 4 reside in Washino's camera in Fig. 2a), this Brief now addresses the specific components that the Final Office Action asserts reside in Washino's camera. Fig. 4, the audio/video production system, is described from Col. 9, line 39 through Col. 12, line 24.

The Final Office Action, at page 4, lines 13-15, asserts that Washino teaches that a "standard/widescreen video interface" described Col. 10, lines 11-18 is located in the camera. A similar assertion is made at page 9, lines 7-9 of the Final Office Action. This standard/widescreen interface is shown only in Fig. 4 and is not described as part of the camera of Fig. 2a.

The Final Office Action, at page 4, lines 15-19, asserts that Washino teaches that the "multiple bus controllers" and other devices, which allow the system to be "capable of handling signals simultaneously from a plurality of sources," described at Col. 12, lines 12-23, are located in the camera. A similar assertion is made at page 9, lines 9-19 of the Final Office Action. These multiple bus controllers and other devices are described specifically in connection with Fig. 4 (note col. 12, line 12) and are not described as part of the camera of Fig. 2a. There is no

discussion of the camera being capable of handling signals simultaneously from a plurality of sources.

The Final Office Action, at page 4, last four lines, asserts that Washino teaches that an interface for controlling a switch is described at Col. 8, line 65 to Col. 9, line 9, Col. 12, lines 12-23 and Col. 14, lines 35-53, and is located on the camera. Of the cited portions of Washino, only Col. 14, lines 35-53 (claim 1 of Washino) mentions an operator interface. This operator interface is described as part of a combination defining an “audio/video production system,” which is the kind of system described in connection with Fig. 4. It does not describe an operator interface on a camera for controlling a switch in the camera of Fig. 2a.

The Final Office Action, at page 5, lines 6-13, asserts that Washino teaches that a “controller,” which is caused to perform functions of conversions of a program into standard or HDTV programs, is described at Col. 14, lines 46-53, and is located in the camera. A similar assertion is made at page 10, lines 3-9 of the Final Office Action. This portion of claim 1 of Washino describes the controller as part of a combination defining an “audio/video production system,” which is the kind of system described in connection with Fig. 4. It does not state that the controller is in the camera of Fig. 2a.

The Final Office Action, at page 6, lines 10-16, asserts that Washino teaches that, in Fig. 4, each of a plurality of digital inputs has an “encoder.” Washino does not teach that these multiple “encoders” in Fig. 4 are in the camera of Fig. 2a.

Thus, the assertions in the Final Office Action, that Washino teaches several elements reside in Washino’s camera, are not supported by substantial evidence. Accordingly, the rejections of that rely on these erroneous findings of fact (as pointed out below) should be reversed.

B. The rejections should be reversed because the construction of the claims in the Final Office Action is unreasonably broad by being inconsistent with the plain language of the claims and with the specification and by rendering meaningless express claim limitations.

The rejections rely on an erroneous construction the claims, and in particular on an erroneous construction of the limitation of “enabling the user to specify a sequence of segments [or a list of portions as recited in claim 20] of the plurality of data files.” This claim limitation

was construed in an unreasonably broad manner to mean selecting a stored video program. See the Final Office Action, e.g., at page 2, lines 15-17.

Claim construction is a question of law. In re Baker Hughes, Inc., 215 F.3d 1297, 1301 (Fed. Cir. 2000). Claims are given their broadest reasonable scope that is consistent with the specification. In re Hiniker Co., 150 F.3d 1362, 1368 (Fed. Cir. 1998). Claims should be construed according to the plain language of the inventors used therein. See, e.g., In re Roemer, 258 F.3d 1303, 1308 (Fed. Cir. 2001). Words in a claim should be given their ordinary and accustomed meaning unless the inventor chose to be his own lexicographer in the specification. In re Bass, 314 F.3d 575, ___, 65 U.S.P.Q.2d 1156, 1158 (Fed. Cir. 2002) (citing Lantech, Inc. v. Keip Mach. Co., 32 F.3d 542, 547 (Fed. Cir. 1994)). Where the language of the claim is clear, the claim construction should give full effect to each recited element, and not render meaningless express claim limitations. See, e.g., Unique Concepts v. Brown, 939 F.2d 1558, 1563, 19 USPQ2d 1500, 1504 (Fed. Cir. 1991) ("When the language of a claim is clear, as here, and a different interpretation would render meaningless express claim limitations, we do not resort to speculative interpretation Our interpretation gives full effect to the recitation of two distinct elements in the claimed structure . . . ,” and citing White v. Dunbar, 119 U.S. 47, 52 (1886): "The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.")

The Final Office Action construes the claims in the following manner. First, the Final Office Action asserts that “a stored video program may be considered a sequence of segments of the still images since each stored still image of may be [sic] considered a segment, i.e. a frame, and a sequence of such segments constitute a program.” Page 2, lines 15-18; Page 5, lines 10-13. Further, the Final Office Action asserts that “Washino et al. disclose . . . means, in the housing, for enabling the individual to specify a sequence of segments of the plurality of digital still images stored on the . . . medium.” Page 5, lines 1 and 6-8. See also page 10, lines 3-5.⁴

⁴ The Final Office Action acknowledges that the claims actually recite a sequence of segments, or a list of portions, of “a plurality of data files,” and not “a plurality of digital still images.” The Final Office Action concludes that it would have been obvious to modify the “plurality of still images” based on the teachings of Freeman). The Final Office Action concludes that such a modification would result in the claim limitation.

It also may be helpful, in understanding the claim construction of the Final Office Action, to consider the portion of Washino relied upon in the Final Office Action as teaching this limitation. The Final Office Action refers to Col. 14, lines 39-53, of Washino, which states:

“whereby commands entered by an operator through the interface cause the following functions to be performed:

- (a) the conversions of an audio/video program into the production format,
- (b) storage of a program in the production format in the high-capacity video storage means,
- (c) the conversion of a program in the production format into a standard/widescreen program, either directly from the means to receive the input signal or from the high-capacity video storage means, and
- (d) the conversion of a program in the production format into an HDTV program, either directly from the means to receive an input signal or from the high-capacity video storage means.”

From the foregoing, it is apparent that the phrase “specify a sequence of segments of the plurality of data files”⁵ has been construed in the Final Office Action to mean selecting a stored video program, which happens to be stored in a data file. The phrase “specify a list of portions” in claim 20 was not specifically construed in the Final Office Action, but, based on the Final Office Action’s rejection of claim 20 by a mere reference to the rejection of claim 1 (see Final Office Action, page 8), it is understood by the Applicant that the this phrase has been construed to mean selecting a stored video program.

This claim construction is erroneous because 1) it is inconsistent with the plain language of the claim, 2) it is inconsistent with the specification and 3) it renders meaningless express claim limitations.

A proper construction of the phrase “enabling a user to specify a sequence of segments of the plurality of data files” requires considering of the plain meaning of each word, and ensuring that the resulting construction is consistent with the specification.

Some example definitions of the words of the claim have been obtained from the Merriam-Webster Dictionary Online, <http://www.m-w.com>. In particular, to “specify” means “to name or state explicitly or in detail.” A “sequence” means “a continuous or connected series: as . . . a set of elements ordered so that they can be labeled with the positive integers [or] . . . a

⁵ The Final Office Action actually uses the phrase “specify a sequence of segments of a plurality of still images,” to first characterize the teachings of Washino, then interprets that language to mean a “stored video program,” and then modifies “still images” to be “data files” to arrive at the assertion that the claim limitation is met. This claim construction process also is improper.

succession of related shots or scenes developing a single subject or phase of a film story.” A “segment” means “a separate piece of something [, or] . . . one of the constituent parts into which a body, entity, or quantity is divided or marked off by or as if by natural boundaries.” Also, both “segments” and “data files” are plural, thus requiring at least two of each.

Such definitions provide insight into the plain meaning of the phrase “enabling the user to specify a sequence of segments of the plurality of data files.” For example, the phrase may be construed to mean enabling a user to name or state explicitly or in detail an ordered set of two or more pieces of two or more data files. Construing this element of the independent claims (except claim 20), as was done in the Final Office Action, to mean merely selecting a stored video program, is inconsistent with the plain meaning of these words.

The claim construction also is erroneous because it is not even based on the words of the claims. The Final Office Action asserts that a “sequence of segments” of a plurality of digital still images is a sequence of images, and thus a stored video program. The claims, however, recite a “sequence of segments of a plurality of data files.” It was error to construe the words “sequence of segments” out of context as was done in the Final Office Action.

Similarly, regarding the “list of portions” recited in claim 20, the following example definitions also were obtained from Merriam-Webster Dictionary Online. A “list” means “a simple series of words or numerals (as the names of persons or objects).” A “portion” means “an often limited part set off or abstracted from a whole.” Also, the word “portion” was analyzed in Rexnord Corp. v. The Laitram Corp., 274 F.3d 1336, ___, 60 USPQ2d 1851, 1855-1859 (2001). In Rexnord, the Federal Circuit concluded that a broadest reasonable interpretation of “portion” encompasses both “separate” and “integral” parts. Also, both of the words “portions” and “data files” are plural. In other words, there must be two or more portions and two or more data files.

Such definitions provide insight into the plain meaning of the phrase “enabling the user to specify a list of portions of the plurality of data files.” For example, the phrase may be construed to mean enabling a user to name or state explicitly or in detail a simple series of two or more words or numbers describing parts of (whether integral with or separate from) two or more data files. Construing claim 20, as was done in the Final Office Action, to mean merely selecting a stored video program, is inconsistent with the plain meaning of these words.

The construction of claim 20 also was erroneous by incorporating the same errors in claim construction that were made in connection with the other independent claims, as discussed

above. It was also error not to construe the actual words of the claim, i.e., "list of portions," where the words are different from those in other claims.

Turning now to the specification, page 4, lines 15-21 states:

"An embodiment of the various aspects of the invention includes an editing system which allows a list of portions of the recorded media to be played. Using a random-access recording medium, real time playback of edited clips in an edited sequence is provided directly on the camera. Additionally this playback list may include live sequences and thus provides on the camera a broadcast output that switches between live images and prerecorded clips which may have been edited. This allows a contiguous output video signal to be generated from these multiple sources within the camera."

Editing also is discussed on page 16, which states, from lines 1-13:

"the recorder includes an editing system . . . described in U.S. Patent Application Serial No. 08/418,948, filed April 7, 1995, and incorporated by reference herein. The inclusion of the editing system allows the user to edit the video material recorded at the recording site, even prior to, or in lieu of, editing in a studio. This is a particularly advantageous if the material must be broadcast immediately. Therefore, the video and audio signals may be recorded, edited and broadcast from the field in a very short period of time. During editing, information is played back through the digital video pipeline through an external video port, or to have the external video port transmit live video. The arrangement of a variety of video inputs and outputs provides switching capabilities in the camera similar to those found in a television broadcast studio."

The referenced patent application in the quote above (hereinafter called the "Editor Application") describes in more detail how the editing system permits an editor to define a list of edited clips to be played back in an edited sequence. In particular, the Editor Application, page 15, lines 14-16 states:

"a 'sequence play list' is a programmable list of events. An event may hold information for playing a clip, or an event may control a switch to a specific video source. This programmable list is played back to the program video output."

The Editor application further states: "A clip is the result of any one cycle of recording and may include video information, audio information, or both. . . . Clips may be assigned a mark in and mark out points using the editing features . . ." Editor Application, page 18, lines 7-15. "An event contains mark in and mark out location and rack playback assignments for a clip." Editor Application, page 18, lines 16-17. Mark in and mark out locations refer to images, and

“[t]he in frame is played as part of any event in a sequence, but the out frame is not played.”

Editor Application, page 30, last line to page 31, first line.

In view of the foregoing, a sequence playlist includes a list of events, wherein each event refers to a clip (stored in a data file) and mark in and mark out points in the clip. The interpretation of the claim as enabling a user to name or state explicitly or in detail an ordered set of two or more pieces of two or more data files is consistent with the specification's description of a sequence playlist. In contrast, interpreting the claim to mean selecting a stored video program is not consistent with the specification.

Finally, interpreting the phrase “specify a sequence of segments of the plurality of data files” to mean selecting a stored video program renders meaningless express claim limitations. In particular, such an interpretation ignores the requirement for segments of a *plurality* of data files by equating “sequence of segments” of video information with a “data file” that stores the same video information, and ignoring the requirement for two or more segments of two or more data files.

Therefore, the rejections should be reversed because the claim construction in the Final Office Action 1) is inconsistent with the plain language of the claim, 2) is inconsistent with the specification and 3) renders meaningless express claim limitations.

C. The rejections should be reversed because the claims as properly construed are not rendered obvious by the teachings, as properly understood, of the cited references.

Having now construed some limitations of the claims and considered the factual findings about what the primary reference (Washino) teaches, the claims will now be compared to the teachings of the references. In particular, all of the claims recite a “housing” that is “portable” and that includes: a “camera,” storage in which digital video information is stored in a “computer readable file format,” and a means for “enabling a user to specify a sequence of segments,” or “list of portions,” of the “plurality of data files.” Each of the claims includes these and other limitations that are not met by the primary reference, for the following reasons. The Final Office Action does not rely on the secondary references (Freeman and Morita) to teach these limitations. Accordingly, the claims are distinguishing over the cited references.

1. The claims of Group I (claims 1 and 13-16) are patentable over the cited references.

Claim 1 recites a “digital motion picture recorder” comprising “a housing sized to be portable for use by an individual” and “a camera mounted in the housing.” The camera provides a “full motion video signal” that is stored in a “plurality of data files.” The remaining elements of the claim also are recited as being in the “housing” that includes the camera.

In particular, independent claim 1 recites “an encoder mounted in the housing . . .” The Final Office Action relies on the “standard/widescreen video interface” of Fig. 4 as described at Col. 10, lines 11-18, for teaching this limitation. However, as noted above, that interface in Fig. 4 is not in the housing that includes the camera. Accordingly, this limitation is not met by Washino.

Independent claim 1 also recites “a switch mounted in the housing . . .” The Final Office Action relies on the “multiple bus controllers” and other devices described at Col. 12, lines 12-23, for teaching this limitation. It is noted that in connection with Claim 14 the Final Office Action asserts that the switch is met by Col. 14, lines 34-53, in which the controller can convert either live video or recorded video to provide an output through one of the interfaces 120 or 124. However, as noted above, these controllers and other devices are described specifically in connection with Fig. 4 or an audio/video production system, and are not described as being in the housing that includes the camera. Accordingly, this limitation is not met by Washino.

Independent claim 1 also recites “an interface on the housing . . .” The Final Office Action relies on the “operator interface” recited in claim 1 of Washino at Col. 14, lines 35-53, for teaching this limitation. However, as noted above, this interface is described as part of the audio/video production system and is not described as being in the housing that includes the camera. Accordingly, this limitation is not met by Washino.

Finally, independent claim 1 recites:

“means, in the housing, for enabling the individual to specify a sequence of segments of the plurality of data files stored on the digital, computer-readable and writeable random-access medium; and

means, in the housing, for enabling the individual to initiate playback of full motion video through the switch and the encoder using the digital still images from the plurality of data files stored on the digital, computer-readable and writeable random-access medium according to the specified sequence of segments of the plurality of data files.”

As noted above, the Final Office Action incorrectly interpreted the first of these elements to mean merely selecting a stored video program. Furthermore, the cited portion of Washino (Col. 14, lines 39-53) as modified by Freeman such that a video program is stored in a data file, does not meet this limitation when properly construed. Finally, the cited portion of Washino does not describe anything that is in the housing that includes the camera. Because Washino does not teach this limitation, it also cannot teach a means for “enabling the individual to initiate playback of full motion video through the switch and the encoder using the digital still images from the plurality of data files stored . . . medium *according to the specified sequence of segments of the plurality of data files.*”

For the foregoing reasons, claim 1 distinguishes over the combination of references relied upon in the Final Office Action.

Turning now to dependent claims, Claim 14 also recites:

“a first pixel bus for transmitting a sequence of digital still images from the decoder; and
a second pixel bus for transmitting a sequence of digital still images from the digital,
computer-readable and writeable random-access medium,
wherein the first pixel bus is connected to the first input of the switch and the second
pixel bus is connected to the second input of the switch.”

The Final Office Action refers to the Digital Inputs (presumably 122 or 126) of Fig. 4 and the Data Bus (108) of Fig. 4 of Washino, and the description at Col. 12, lines 12-23 and Col. 14, lines 35-53, of Washino to meet these limitations. Notwithstanding the fact that claim 14 does not explicitly recite that the first and second pixel buses are “within the camera,” these buses transmit data between elements in the housing that includes the camera, and thus are in the housing that includes the camera. In particular, the first pixel bus transmits data from the decoder to the first input of the switch. The second pixel bus transmits data from the medium to the second input of the switch. The switch is connected to the encoder. Because the elements of Fig. 4 of Washino that are alleged to teach the claimed decoder, medium, switch, encoder and buses, are not in the camera of Washino, these limitations of claim 14 are not met by Washino. Accordingly, dependent claim 14 distinguishes over the combination of references relied upon in the Final Office Action.

2. The claim of Group II (claim 4) is patentable over the cited references.

Claim 4 recites a “digital video recording device” comprising “a portable housing” and “a camera mounted in the portable housing.” The camera provides a “video signal.” A “decoder mounted in the portable housing” provides, from this video signal, “digital video information as a sequence of digital still images.” This digital video information is stored in “a plurality of data files.” The remaining elements of the claim also are recited as being in the “portable housing” that includes the camera.

In particular, Claim 4 recites “an encoder mounted in the portable housing,” “a switch mounted in the portable housing” and “an interface mounted in the portable housing.” These limitations are similar to limitations in claim 1 that are addressed above and distinguish over Washino for at least the same reasons. In particular, the elements of Washino relied upon in the Final Office Action as teaching these limitations are not in the housing that includes the camera.

Finally, independent claim 4 recites:

“means, in the portable housing, for enabling the user to specify a sequence of segments of the plurality of data files stored on the random-access, computer-readable and writeable medium; and
means, in the portable housing, for enabling the user to initiate playback of full motion video by the encoder by providing the digital still images from the plurality of data files stored on the random-access, computer-readable and writeable medium through the switch according to the specified sequence of segments of the plurality of data files.”

As noted above, the Final Office Action incorrectly interpreted the first of these elements to mean merely selecting a stored video program. Furthermore, the cited portion of Washino (Col. 14, lines 39-53) as modified by Freeman such that a video program is stored in a data file, does not meet this limitation when properly construed. Finally, the cited portion of Washino does not describe anything that is in the portable housing that includes the camera. Because Washino does not teach this limitation, it also cannot teach a means for “enabling the user to initiate playback of full motion video by the encoder by providing the digital still images from the plurality of data files stored on the . . . medium through the switch *according to the specified sequence of segments of the plurality of data files.*”

For the foregoing reasons, claim 4 distinguishes over the combination of references relied upon in the Final Office Action.

3. The claim of Group III (claim 5) is patentable over the cited references.

Claim 5 recites a “digital video recording device” comprising “a portable housing” and “a camera mounted in the portable housing.” The camera provides a “full motion video signal.” This full motion video signal is stored in “a plurality of data files.” The remaining elements of the claim also are recited as being in the “portable housing” that includes the camera.

In particular, Claim 5 recites “an encoder mounted in the portable housing” and “means in the portable housing for causing the encoder to select between the first and second inputs.” These limitations are similar to limitations in claims 1 and 4 that are addressed above and distinguish over Washino for at least the same reasons. In particular, the elements of Washino relied upon in the Final Office Action as teaching these limitations are not in the housing that includes the camera.

Finally, independent claim 5 recites:

“means in the portable housing for enabling the user to specify a sequence of segments of the plurality of data files stored on the digital, computer-readable and writeable random-access medium; and

means in the portable housing for enabling the user to initiate playback of full motion video by the encoder by providing the digital video information from the plurality of data files stored on the digital, computer-readable and writeable random-access medium to the first input of the encoder according to the specified sequence of segments of the plurality of data files.”

As noted above, the Final Office Action incorrectly interpreted the first of these elements to mean merely selecting a stored video program. Furthermore, the cited portion of Washino (Col. 14, lines 39-53) as modified by Freeman such that a video program is stored in a data file, does not meet this limitation when properly construed. Moreover, the cited portion of Washino does not describe anything that is in the portable housing that includes the camera. Because Washino does not teach this limitation, it also cannot teach a means for “enabling the user to initiate playback of full motion video by the encoder by providing the digital video information from the plurality of data files stored on the . . . medium to the first input of the encoder *according to the specified sequence of segments of the plurality of data files.*”

For the foregoing reasons, claim 5 distinguishes over the combination of references relied upon in the Final Office Action.

4. The claims of Group IV (claim 6-7 and 9-11) are patentable over the cited references.

Claim 6 recites “a digital recording device, comprising, in a portable housing . . . a camera . . .” The camera provides a “full motion video signal.” This full motion video signal is stored in “a plurality of data files.” The camera and the remaining elements of the claim, by virtue of the preamble reciting “in a portable housing,” are in the “portable housing” that includes the camera.

In particular, claim 6 recites “an encoder” and “means for causing the encoder to select between the first and second inputs.” As noted in the preamble of claim 6, all of the elements of claim 6 are “in a portable housing.” These limitations are similar to limitations in claim 5 that are addressed above and distinguish over Washino for at least the same reasons. In particular, the elements of Washino relied upon in the Final Office Action as teaching these limitations are not in the housing that includes the camera.

Finally, independent claim 6 recites:

“means for enabling the user to specify a sequence of segments of the plurality of data files stored on the means for storing; and
means for enabling the user to initiate playback of full motion video by the encoder by providing the digital video information from the plurality of files stored on the means for storing to the first input of the encoder according to the specified sequence of segments of the plurality of data files.”

As noted above, the Final Office Action incorrectly interpreted the first of these elements to mean merely selecting a stored video program. Furthermore, the cited portion of Washino (Col. 14, lines 39-53) as modified by Freeman such that a video program is stored in a data file does not meet this limitation when properly construed. Finally, the cited portion of Washino does not describe anything that is in the portable housing that includes the camera. Because Washino does not teach this limitation, it also cannot teach a means for “enabling the user to initiate playback of full motion video by the encoder by providing the digital video information from the plurality of data files stored on the means for storing to the first input of the encoder *according to the specified sequence of segments of the plurality of data files.*”

For the foregoing reasons, claim 6 distinguishes over the combination of references relied upon in the Final Office Action.

Turning now to the dependent claims, claim 9 recites:

“a second encoder having a first input connected to receive stored digital video information from the means for storing and a second input connected to receive digital video information corresponding to the received full motion video signal, and an output for providing an output video signal according to a selected one of the first and second inputs; and means for causing the second encoder to select from one of the first and second inputs.”

The Final Office Action asserts that the descriptions of Fig. 4 from Washino, including Col. 10, lines 11-21, and Col. 12, lines 12-23, and additionally the HDTV video interface 124 of Fig. 4, teach these limitations. As noted above, these portions of Washino do not teach elements that are in the housing that includes the camera. Moreover, claim 9 recites a combination of two encoders and two switches, wherein each encoder can playback either live video or recorded video. Thus the structure of claim 9 permits a first encoder to play live video while the second encoder plays recorded video, or the first encoder may play recorded video while the second encoder plays live video, or the first encoder and the second encoder may both play live video or they may both play recorded video. Col. 12, lines 12-23, and Col. 14, lines 35-53 of Washino do not teach such a combination.

For these reasons, claim 9 distinguishes over the combination of references relied upon in the Final Office Action.

Claim 11 recites:

“a first bus connecting the camera to the first input of the encoder; and a second bus connecting the means for storing to the second input of the encoder.”

These limitations are similar to those discussed above in connection with claim 14. In particular, the Final Office Action refers to the Digital Inputs (presumably 122 or 126) of Fig. 4 and the Data Bus (108) of Fig. 4, and the description at Col. 12, lines 12-23, and Col. 14, lines 35-53, of Washino to meet these limitations. Notwithstanding the fact that the claims do not

explicitly recite that the first and second buses are in the housing, these buses transmit data between elements that are in the housing. Therefore the first and second buses in the claim should be construed as being in the housing that includes the camera. In particular, the first bus transmits data from the camera to the first input of the encoder. The second bus transmits data from the means for storing to the second input of the encoder. Because the elements of Fig. 4 that are alleged to teach the claimed encoder and buses are not in the camera of Washino, these limitations of claim 11 are not met by Washino.

Accordingly, dependent claim 11 distinguishes over the combination of references relied upon in the Final Office Action.

5. The claims of Group V (claims 17 and 19) are patentable over the cited references.

Claim 17 recites a “digital video recording device” comprising “a portable housing” and “a camera attached to the portable housing.” The camera provides “live digital video information” that is stored in “a plurality of data files.” Most of the remaining elements of the claim also are recited as being in, or mounted in, or mounted within, the “portable housing” that includes the camera. Some elements are not specifically recited as being within the camera.

In particular, claim 17 recites “a first encoder mounted in the portable housing” and “a first switch mounted within the portable housing.” These limitations are similar to limitations in claim 1 that are addressed above and distinguish over Washino for at least the same reasons. In particular, the elements of Washino relied upon in the Final Office Action as teaching these limitations are not in the housing that includes the camera.

Claim 17, similarly to claim 9, also recites “a second encoder mounted within the portable housing” and “a second switch mounted within the portable housing.” The Final Office Action asserts that the same descriptions of Fig. 4 from Washino, including Col. 10, lines 11-21, and Col. 12, lines 12-23, and additionally the HDTV video interface 124 of Fig. 4, teach these limitations. As noted above, these portions of Washino do not teach elements that are in the housing that includes the camera. Moreover, claim 17 recites a combination of two encoders and two switches, wherein each encoder can playback either live video or recorded video. Thus the structure of claim 17 permits a first encoder to play live video while the second encoder plays recorded video, or the first encoder may play recorded video while the second encoder plays live

video, or the first encoder and the second encoder may both play live video or they may both play recorded video. Col. 12, lines 12-23, and Col. 14, lines 35-53 of Washino do not teach this combination.

Claim 17 also recites:

“means for enabling the user to specify a sequence of segments of the plurality of data files stored on the random access, computer-readable and writeable medium;

means for enabling the user to initiate playback of full motion video by the first encoder by providing the digital video information from the plurality of files stored on the random access, computer readable and writeable medium through the first switch according to the specified sequence of segments of the plurality of data files, including means for controlling the first switch; and

means for enabling the user to initiate playback of full motion video by the second encoder by providing the digital video information from the plurality of files stored on the random access, computer readable and writeable medium through the second switch, according to the specified sequence of segments of the plurality of data files, including means for controlling the second switch.”

As noted above, the Final Office Action incorrectly interpreted the first of these to elements to mean merely selecting a stored video program. Furthermore, the cited portion of Washino (Col. 14, lines 39-53), as modified by Freeman such that a video program is stored in a data file, does not meet this limitation when properly construed.

Because Washino does not teach the limitation regarding specifying a sequence of segments, it also cannot teach a means for “enabling the user to initiate playback of full motion video by the first encoder by providing the digital video information from the plurality of files stored on the . . . medium through the first switch *according to the specified sequence of segments of the plurality of data files*, including means for controlling the first switch.”

Because Washino does not teach the limitation regarding specifying a sequence of segments, it also cannot teach a means for “enabling the user to initiate playback of full motion video by the second encoder by providing the digital video information from the plurality of files stored on the . . . medium through the second switch, *according to the specified sequence of segments of the plurality of data files*, including means for controlling the second switch.”

It is noted that these “means” are not explicitly described as being “in the portable housing” that includes the camera. However, these means operate on the elements that are claimed to be in the housing that includes the camera, namely: the medium on which the data

files are stored, the encoders and the switches. The portions of Washino cited in the Final Office Action do not describe features that operate on structures in the camera in Washino.

For the foregoing reasons, claim 17 distinguishes over the combination of references relied upon in the Final Office Action.

Dependent claim 19 recites a “means for setting the first switch to allow playback of full motion video from the camera by the first encoder during playback by the second encoder of the sequence of segments from the plurality of data files.” Again, the Final Office Action relies solely on Col. 12, lines 12-23, and Col. 14, lines 39-53 for teaching this limitation. The cited portion of Washino merely states that the output of the standard video interface may be either from a live source or a recorded source and that the output of the high definition video interface may be either from a live source or a recorded source. This portion of Washino does not teach that live video from a camera may be played back by one encoder while a sequence of segments from the plurality of data files may be played back by another encoder, with this functionality being provided in the housing that includes the camera.

For these reasons, claim 19 distinguishes over the combination of references relied upon in the Final Office Action.

6. The claim of Group VI (claim 20) is patentable over the cited references.

Claim 20 recites a “digital video recording device” comprising “a portable housing” and “a camera mounted in the portable housing.” The camera provides a “full motion video signal” that is stored in a “plurality of data files.” The remaining elements of the claim also are recited as being in the “portable housing” that includes the camera.

In particular Claim 20 recites “an encoder mounted in the portable housing” and “means in the portable housing for causing the encoder to select between the first and second inputs.” These limitations are similar to limitations in claim 5 that are addressed above and distinguish over Washino for at least the same reasons. In particular, the elements of Washino relied upon in the Final Office Action as teaching these limitations are not in the housing that includes the camera.

Claim 20 also recites a “means in the portable housing for enabling the user to specify a list of portions of the plurality of data files stored on the digital, computer-readable and writeable random-access medium.” This language was discussed above in Section B of the Argument.

As noted above, the Final Office Action erroneously construed the first of these elements to mean merely selecting a stored video program. The Final Office Action asserts that the “controller,” mentioned at Col. 14, lines 35-53 and presumably modified by Freeman such that a video program is stored in a data file, meets this limitation. As noted above, this “controller” merely permits an operator to select a video program and convert it to another format. It does not allow the operator to specify a list of portions of a plurality of data files as claimed. This controller also is not in the portable housing that includes the camera.

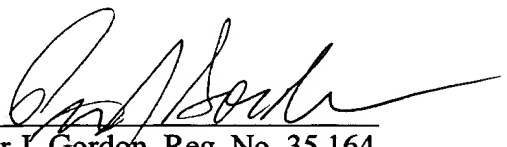
Because Washino does not teach the limitation regarding specifying a list of portions of the plurality of data files, it also cannot teach a means for “enabling the user to initiate playback of full motion video by the encoder as a contiguous output signal by providing the digital video information from the plurality of data files stored on the digital, computer-readable and writeable random-access medium to the first input of the encoder *according to the specified list of portions of the plurality of data files.*”

For the foregoing reasons, claim 20 distinguishes over the combination of references relied upon in the Final Office Action.

IX. CONCLUSION

For the foregoing reasons, the rejections under 35 U.S.C. §103 of claims 1, 4-7, 9-11, 13-17, 19 and 20 in the Final Office Action should be reversed.

Respectfully submitted,

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X. APPENDIX I: CLAIMS AS APPEALED UNDER 37 C.F.R. 1.192(c)(9)

1. (Previously Presented) A digital motion picture recorder, comprising:

a housing sized to be portable for use by an individual;

a camera mounted in the housing having an output for providing a full motion video signal;

a decoder, mounted in the housing, for receiving the full motion video signal from the camera and for converting the full motion video signal into a sequence of digital still images;

a digital, computer-readable and writeable random-access medium mounted in the housing, and connected to receive and store the sequence of digital still images from the decoder in a computer-readable file format and to provide digital still images stored thereon;

means, in the housing, for enabling the individual to capture digital still images from the decoder into a plurality of data files on the digital, computer-readable and writeable random-access medium, wherein each of the plurality of data files stores a sequence of digital still images;

an encoder mounted in the housing and having an input for receiving a sequence of digital still images, for generating as an output a full motion video signal;

a switch mounted in the housing and having a first input for receiving digital still images from the decoder and a second input for receiving digital still images from the digital, computer-readable and writeable random-access medium, and an output connected to the input of the encoder;

an interface on the housing for causing the switch to provide one of the first and second inputs as the sequence of digital still images to the input of the encoder;

means, in the housing, for enabling the individual to specify a sequence of segments of the plurality of data files stored on the digital, computer-readable and writeable random-access medium; and

means, in the housing, for enabling the individual to initiate playback of full motion video through the switch and the encoder using the digital still images from the plurality of data files stored on the digital, computer-readable and writeable random-access medium according to the specified sequence of segments of the plurality of data files.

2. Cancelled.

3. Cancelled.

4. (Previously Presented) A digital video recording device, comprising:

a portable housing;

a camera mounted in the portable housing having an output providing a video signal;

a decoder mounted in the portable housing having an input connected to the output of the camera and an output providing digital video information as a sequence of digital still images;

a random-access, computer-readable and writeable medium mounted in the portable housing and for storing digital video information from the decoder as a sequence of digital still images in a computer-readable file format and for providing digital video information stored thereon;

means, in the portable housing, for enabling a user to capture sequences of digital still images from the decoder into a plurality of data files on the random-access, computer-readable and writeable medium, wherein each of the plurality of data files stores a sequence of digital still images;

an encoder mounted in the portable housing and having an input for receiving a sequence of digital still images and having an output for providing an output video signal from the received sequence of digital still images;

a switch mounted in the portable housing having a first input for receiving the sequence of digital still images from the decoder and a second input for receiving the sequence of digital still images from the random-access, computer-readable and writeable medium, and an output connected to provide one of the received sequences of digital still images to the input of the encoder;

an interface on the portable housing for causing the switch to provide one of the first and second inputs to the input of the encoder; and

means, in the portable housing, for enabling the user to specify a sequence of segments of the plurality of data files stored on the random-access, computer-readable and writeable medium; and

means, in the portable housing, for enabling the user to initiate playback of full motion video by the encoder by providing the digital still images from the plurality of data files stored

on the random-access, computer-readable and writeable medium through the switch according to the specified sequence of segments of the plurality of data files.

5. (Previously Presented) A digital video recording device, comprising:

- a portable housing;

- a camera mounted in the portable housing having an output for providing a full motion video signal;

- a digital, computer-readable and writeable random access medium mounted in the portable housing;

- means, in the portable housing, for enabling a user to capture digital video information corresponding to the full motion video signal into a plurality of data files in a computer readable file format on the digital, computer-readable and writeable random-access medium;

- an encoder mounted in the portable housing and having a first input for receiving digital video information from files stored on the digital computer-readable and writeable random-access medium, a second input for receiving digital video information corresponding to the full motion video signal from the camera and an output providing a video signal according to the first or second input;

- means in the portable housing for causing the encoder to select between the first and second inputs; and

- means in the portable housing for enabling the user to specify a sequence of segments of the plurality of data files stored on the digital, computer-readable and writeable random-access medium; and

- means in the portable housing for enabling the user to initiate playback of full motion video by the encoder by providing the digital video information from the plurality of data files stored on the digital, computer-readable and writeable random-access medium to the first input of the encoder according to the specified sequence of segments of the plurality of data files.

6. (Previously Presented) A digital video recording device, comprising, in a portable housing:

- a camera for providing a full motion video signal;

- means for storing data;

means for enabling a user to capture digital video information corresponding to the full motion video signal into a plurality of data files in a computer readable file format on the means for storing;

an encoder having a first input for receiving stored digital video information from the means for storing and a second input for receiving digital video information corresponding to the full motion video signal, and an output for providing a video signal according to either the first or second input;

means for causing the encoder to select between the first and second inputs; and

means for enabling the user to specify a sequence of segments of the plurality of data files stored on the means for storing; and

means for enabling the user to initiate playback of full motion video by the encoder by providing the digital video information from the plurality of files stored on the means for storing to the first input of the encoder according to the specified sequence of segments of the plurality of data files.

7. (Previously Presented) The digital video recording device of claim 6, further comprising:

means for selectively operating the means for storing to store digital video information corresponding to the received full motion video signal as digital video information or to direct stored digital video information to the first input of the encoder.

8. Cancelled.

9. (Previously Presented) The digital video recording device of claim 6, further comprising:

a second encoder having a first input connected to receive stored digital video information from the means for storing and a second input connected to receive digital video information corresponding to the received full motion video signal, and an output for providing an output video signal according to a selected one of the first and second inputs; and

means for causing the second encoder to select from one of the first and second inputs.

10. (Previously Presented) The digital video recording device of claim 6, further comprising:

means for receiving and for storing on the means for storing digital audio information in a plurality of data files;

an audio encoder having a first input connected to receive input audio information and a second input to receive stored digital audio information from the means for storing, and an output providing an output audio signal according to a selected one of the first and second inputs; and

means for causing the audio encoder to select from one of the first and second inputs.

11. (Previously Presented) The digital video recording device of claim 6, further comprising:
a first bus connecting the camera to the first input of the encoder; and
a second bus connecting the means for storing to the second input of the encoder.

12. Cancelled.

13. (Previously Presented) The digital motion video recorder according to claim 1, further comprising:

a media data buffer for receiving a sequence of digital still images from the decoder and for providing the received sequence of digital still images to the digital, computer-readable and writeable random-access medium; and

a processor for controlling data flow between the media data buffer and the digital, computer-readable and writeable random-access medium.

14. (Previously Presented) The digital motion video recorder according to claim 1, further comprising:

a first pixel bus for transmitting a sequence of digital still images from the decoder; and
a second pixel bus for transmitting a sequence of digital still images from the digital, computer-readable and writeable random-access medium, wherein the first pixel bus is connected to the first input of the switch and the second pixel bus is connected to the second input of the switch.

15. (Previously Presented) The digital motion video recorder according to claim 1, wherein the digital, computer-readable and writeable random-access medium is a disk drive having a capacity to store several minutes of sequences of digital still images.

16. (Previously Presented) The digital motion video recorder according to claim 1, further comprising means for storing digital audio information in a plurality of data files on the digital, computer-readable and writeable random-access medium, and for playing back the digital audio information in synchronization with the full motion video signal output by the encoder.

17. (Previously Presented) A digital video recording device, comprising:

- a portable housing;

- a camera attached to the portable housing and having an output providing live digital video information;

- a display mounted on the portable housing;

- a random access, computer-readable and writeable medium mounted within the portable housing;

- means, in the portable housing, for enabling a user to capture digital video information from the camera into a plurality of data files in a computer readable file format on the random access, computer-readable and writeable medium;

- a first encoder mounted within the portable housing having an input for receiving digital video information and an output for providing output video information;

- a second encoder mounted within the portable housing having an input for receiving digital video information and an output for providing an output video signal to the display;

- a first switch mounted within the portable housing and having a first input for receiving live digital video information from the camera and a second input for receiving recorded digital video information from the random access computer-readable and writeable medium, and an output connected to provide the digital video information to the input of the first encoder;

- a second switch mounted within the portable housing and having a first input for receiving live digital video information from the camera and a second input for receiving recorded digital video information from the random access computer-readable and writeable

medium, and an output connected to provide the digital video information to the input of the second encoder;

means for enabling the user to specify a sequence of segments of the plurality of data files stored on the random access, computer-readable and writeable medium;

means for enabling the user to initiate playback of full motion video by the first encoder by providing the digital video information from the plurality of files stored on the random access, computer readable and writeable medium through the first switch according to the specified sequence of segments of the plurality of data files, including means for controlling the first switch; and

means for enabling the user to initiate playback of full motion video by the second encoder by providing the digital video information from the plurality of files stored on the random access, computer readable and writeable medium through the second switch, according to the specified sequence of segments of the plurality of data files, including means for controlling the second switch.

18. Cancelled.

19. (Previously Presented) The digital video recording device of claim 17, further comprising:

means for setting the first switch to allow playback of full motion video from the camera by the first encoder during playback by the second encoder of the sequence of segments from the plurality of data files.

20. (Previously Presented) A digital video recording device, comprising:

a portable housing;

a camera mounted in the portable housing having an output for providing a full motion video signal;

a digital, computer-readable and writeable random access medium mounted in the portable housing;

means, in the portable housing, for enabling a user to capture digital video information corresponding to the full motion video signal into a plurality of data files in a computer readable file format on the digital, computer-readable and writeable random-access medium;

an encoder mounted in the portable housing and having a first input for receiving digital video information from files stored on the digital computer-readable and writeable random-access medium, a second input for receiving digital video information corresponding to the full motion video signal from the camera and an output providing a video signal according to the first or second input;

means in the portable housing for causing the encoder to select between the first and second inputs; and

means in the portable housing for enabling the user to specify a list of portions of the plurality of data files stored on the digital, computer-readable and writeable random-access medium; and

means in the portable housing for enabling the user to initiate playback of full motion video by the encoder as a contiguous output signal by providing the digital video information from the plurality of data files stored on the digital, computer-readable and writeable random-access medium to the first input of the encoder according to the specified list of portions of the plurality of data files.

XI. APPENDIX II: TABLE OF LIMITATIONS OF INDEPENDENT CLAIMS

1	4	5	6	17	20
A digital motion picture recorder, comprising	A digital video recording device, comprising	A digital video recording device, comprising	A digital video recording device, comprising	A digital video recording device, comprising	A digital video recording device, comprising
a housing sized to be portable for use by an individual	a portable housing	a portable housing	comprising, in a portable housing:	a portable housing	a portable housing
a camera mounted in the housing having an output for providing a full motion video signal	a camera mounted in the portable housing having an output providing a video signal	a camera mounted in the portable housing having an output for providing a full motion video signal	a camera for providing a full motion video signal	a camera attached to the portable housing and having an output providing live digital video information	a camera mounted in the portable housing having an output for providing a full motion video signal
				a display mounted on the portable housing	
a decoder, mounted in the housing, for receiving the full motion video signal from the camera and for converting the full motion video signal into a sequence of digital still images	a decoder mounted in the portable housing having an input connected to the output of the camera and an output providing digital video information as a sequence of digital still images				
a digital, computer-readable and writeable random-access medium mounted in the housing, and connected to receive and store the sequence of digital still images from the decoder in a computer-readable file format and to provide digital still images stored thereon	a random-access, computer-readable and writeable medium mounted in the portable housing and for storing digital video information from the decoder as a sequence of digital still images in a computer-readable file format and for providing digital video information stored thereon	a digital, computer-readable and writeable random access medium mounted in the portable housing	means for storing data	a random access, computer-readable and writeable medium mounted within the portable housing	a digital, computer-readable and writeable random access medium mounted in the portable housing

means, in the housing, for enabling the individual to capture digital still images from the decoder into a plurality of data files on the digital, computer-readable and writeable random-access medium, wherein each of the plurality of data files stores a sequence of digital still images	means, in the portable housing, for enabling a user to capture sequences of digital still images from the decoder into a plurality of data files on the random-access, computer-readable and writeable medium, wherein each of the plurality of data files stores a sequence of digital still images	means, in the portable housing, for enabling a user to capture digital video information corresponding to the full motion video signal into a plurality of data files in a computer readable file format on the digital, computer-readable and writeable random-access medium	means for enabling a user to capture digital video information corresponding to the full motion video signal into a plurality of data files in a computer readable file format on the means for storing	means, in the portable housing, for enabling a user to capture digital video information from the camera into a plurality of data files in a computer readable file format on the random access, computer-readable and writeable medium	means, in the portable housing, for enabling a user to capture digital video information corresponding to the full motion video signal into a plurality of data files in a computer readable file format on the digital, computer-readable and writeable random-access medium
an encoder mounted in the housing and having an input for receiving a sequence of digital still images, for generating as an output a full motion video signal	an encoder mounted in the portable housing and having an input for receiving a sequence of digital still images and having an output for providing an output video signal from the received sequence of digital still images	an encoder mounted in the portable housing and having a first input for receiving digital video information from files stored on the digital computer-readable and writeable random-access medium, a second input for receiving digital video information corresponding to the full motion video signal from the camera and an output providing a video signal according to the first or second input	an encoder having a first input for receiving stored digital video information from the means for storing and a second input for receiving digital video information corresponding to the full motion video signal, and an output for providing a video signal according to either the first or second input	a first encoder mounted within the portable housing having an input for receiving digital video information and an output for providing output video information	an encoder mounted in the portable housing and having a first input for receiving digital video information from files stored on the digital computer-readable and writeable random-access medium, a second input for receiving digital video information corresponding to the full motion video signal from the camera and an output providing a video signal according to the first or second input
				a second encoder mounted within the portable housing having an input for receiving digital video information and an output for providing an output video signal to the display	

a switch mounted in the housing and having a first input for receiving digital still images from the decoder and a second input for receiving digital still images from the digital, computer-readable and writeable random-access medium, and an output connected to the input of the encoder	a switch mounted in the portable housing having a first input for receiving the sequence of digital still images from the decoder and a second input for receiving the sequence of digital still images from the random-access, computer-readable and writeable medium, and an output connected to provide one of the received sequences of digital still images to the input of the encoder	means in the portable housing for causing the encoder to select between the first and second inputs	means for causing the encoder to select between the first and second inputs	a first switch mounted within the portable housing and having a first input for receiving live digital video information from the camera and a second input for receiving recorded digital video information from the random access computer-readable and writeable medium, and an output connected to provide the digital video information to the input of the first encoder	means in the portable housing for causing the encoder to select between the first and second inputs
				a second switch mounted within the portable housing and having a first input for receiving live digital video information from the camera and a second input for receiving recorded digital video information from the random access computer-readable and writeable medium, and an output connected to provide the digital video information to the input of the second encoder	
an interface on the housing for causing the switch to provide one of the first and second inputs as the sequence of digital still images to the input of the encoder	an interface on the portable housing for causing the switch to provide one of the first and second inputs to the input of the encoder				

means, in the housing, for enabling the individual to specify a sequence of segments of the plurality of data files stored on the digital, computer-readable and writeable random-access medium	means, in the portable housing, for enabling the user to specify a sequence of segments of the plurality of data files stored on the random-access, computer-readable and writeable medium	means in the portable housing for enabling the user to specify a sequence of segments of the plurality of data files stored on the digital, computer-readable and writeable random-access medium	means for enabling the user to specify a sequence of segments of the plurality of data files stored on the means for storing	means for enabling the user to specify a sequence of segments of the plurality of data files stored on the random access, computer-readable and writeable medium	means in the portable housing for enabling the user to specify a list of portions of the plurality of data files stored on the digital, computer-readable and writeable random-access medium
means, in the housing, for enabling the individual to initiate playback of full motion video through the switch and the encoder using the digital still images from the plurality of data files stored on the digital, computer-readable and writeable random-access medium according to the specified sequence of segments of the plurality of data files	means, in the portable housing, for enabling the user to initiate playback of full motion video by the encoder by providing the digital still images from the plurality of data files stored on the random-access, computer-readable and writeable medium through the switch according to the specified sequence of segments of the plurality of data files	means in the portable housing for enabling the user to initiate playback of full motion video by the encoder by providing the digital video information from the plurality of data files stored on the digital, computer-readable and writeable random-access medium to the first input of the encoder according to the specified sequence of segments of the plurality of data files	means for enabling the user to initiate playback of full motion video by the encoder by providing the digital video information from the plurality of files stored on the means for storing to the first input of the encoder according to the specified sequence of segments of the plurality of data files	means for enabling the user to initiate playback of full motion video by the first encoder by providing the digital video information from the plurality of files stored on the random access, computer readable and writeable medium through the first switch according to the specified sequence of segments of the plurality of data files, including means for controlling the first switch	means in the portable housing for enabling the user to initiate playback of full motion video by the encoder as a contiguous output signal by providing the digital video information from the plurality of data files stored on the digital, computer-readable and writeable random-access medium to the first input of the encoder according to the specified list of portions of the plurality of data files
				means for enabling the user to initiate playback of full motion video by the second encoder by providing the digital video information from the plurality of files stored on the random access, computer readable and writeable medium through the second switch, according to the specified sequence of segments of the plurality of data files, including means for controlling the second switch	

<END OF APPENDIX II: END OF BRIEF>